

## **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



Fall 1926 · Spring 1927

# California's Choicest BULBS



62.09

ERYTHRONIUMS

see page 13

CARL PURDY

UKIAH, CALIFORNIA



# Terms, Cash With Order

## Safe Carriage Guaranteed

I guarantee that all bulbs shall reach my customers safely, and that they shall be of good quality. If bulbs are lost in transit, or are not good, I will either replace them or refund the money, at my option.

## Claims for Damage

Claims for damage must be made immediately on receipt of the bulbs or plants.

## Quality of Bulbs

My bulbs are of superior quality, and it is my aim to sell only the best.

## Date of Shipment

All California bulbs should be planted either in fall or early winter if the best results are desired. Very few can be kept in good condition later than January 1. I will not fill orders for Erythroniums later than December 1, and after January 1, I can supply only Lilies.

## Expressage, Postage or Freight Free

In every instance I deliver all goods free of carriage charges within the United States. Under the postal regulations, I can ship 11 pounds by post to Great Britain, Germany, Holland and some other countries. I can pack any order in parcels within these weights, and will, in every case, prepay postage and guarantee safe delivery. The post is both cheaper and more rapid for foreign shipments.

## Prices

Quotations are for one and per dozen. Six will be sent at dozen rates.

## If Varieties Are All Sold

Unless forbidden in your order, I reserve the right to send you equally good sorts and better value than you asked for, when a stock is exhausted.

## INDEX

	PAGE		PAGE
Brodiaeas.....	3, 4, 5	Fritillaria .....	2, 12
Butterfly Tulips .....	7	Globe Tulips .....	8
California Lilies .....	1, 14, 18	Hardiness of Western Plants, etc.....	3
Calochorti .....	3, 7-11	Lady's Slippers, Western .....	21
Camassia .....	6	Larkspur .....	21, 22
Cat's Ears .....	8	Leopard Bog Lilies .....	18, 19
Cypripediums .....	21	Lewisia .....	22, 23
Delphiniums .....	21, 22	Lilies, California .....	15-19
Dodecatheon .....	3	Mariposa Tulips .....	9-12
Dog's-Tooth Violets .....	1, 2, 13-15	Star Tulips .....	8
Erythroniums .....	1, 2, 13-15	Trilliums .....	20

Sow wild flower seeds in bare places. (See last page for list.)



The delicate tints of *Erythroniums* make them one of the most charming plants in a garden. The varieties here illustrated are:  
*E. giganteum* *E. grandiflorum robustum* *E. citrinum* *E. Hendersonii* *E. revolutum*, *Pink Beauty* *E. Californicum*, *White Beauty* *E. Johnsonii*

## NOVELTIES FOR 1926-1927

Before the great war I secured and supplied practically all of the bulbs of the Lily family that grow from Nebraska west, but since then have not had all of them. Following are some that I can again supply. For culture and general description, see catalog under each species.

**Calochortus nitidus** is a very lovely species of the cold Northwest, Eastern Oregon to Montana. About 6 to 9 inches high, with an erect pale cream-colored flower with a vividly contrasting purplish spot at base. 15 cts. each, \$1.25 per doz.

**Calochortus splendens** has the habit of other Mariposa Tulips, with a fine clear lilac flower of good size. 15 cts. each, \$1.25 per doz.

The following *Erythroniums* have never before been in cultivation:

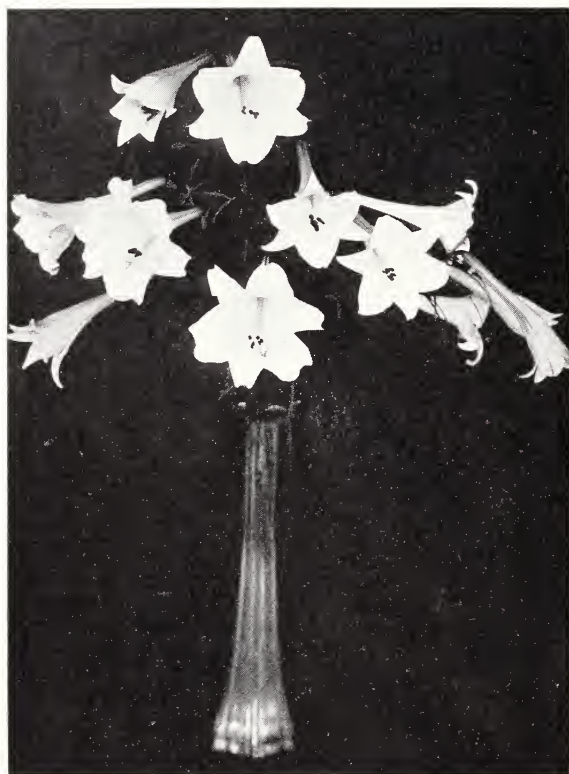
**E. Howellii**, pure white. This lovely species has pure white flowers, well marked with maroon at base. When still fresh they turn a soft rose pink. 12 cts. each, \$1 per doz.

**Sedum Spathuli folium**. See Perennials, page —.

**Erythronium Revolutum**, Purdy's White, is a pure white rather than the lavender white of the type. It is very richly marked at the base and has the stout stem and bold, strong flower of the type. 12 cts. each, \$1 per doz. These will greatly please lovers of this fine genus.

**Fritillaria Biflora** is low in habit, with large almost black flowers. 15 cts. each.

**Fritillaria Purdyii**, never before offered, is like *F. Biflora*, with white flowers flecked crimson. 25 cts. each.



*Lilium Philippinense*

## NOT NOVELTIES

**Lilium Philippinense** is a very rare and distinct Lily native to the high uplands of Luzon, Philippine Islands. Although in the tropics, the climate at that elevation is temperate, and as the rains come in summer, growth starts then, they flower, and the bulbs which come here can be planted in the late winter or spring. They are perfectly hardy.

The many leaves are long and grass-like, and the stems bear from one to five pure white trumpet-shaped flowers, which are very fragrant, and which have a long, slender tube about 6 inches long. Here in California it has done well in filtered shade in a very ordinary clay loam. Probably the addition of some humus would be better, and plenty of moisture while growing is essential. Californian grown bulbs, finest, \$1.25 each, good, 75 cts. each.



# The Hardiness of Western Plants and Bulbs in the East and Far North

It may be said, generally, that all of our western plants winter better when the winter is consistently cold. As a rule, injury, if any, is from being exposed by thaws when foliage is tender. They will winter better in Montreal or Vermont than in New Jersey.

**Calochortus.** The Globe Tulips, like *C. albus*, and the Star Tulips (page 7) are harder than the Mariposa Tulips, and will almost always winter with a light covering of leaves. They wintered in Montreal and Long Island in 1921-22, and have wintered and flowered well on rock-work at Poughkeepsie year after year.

Of the Mariposa Tulips, *C. venustus oculatus*, *C. citrinus*, and *C. vesta* are the strongest growers and the hardiest.

While success with Mariposa Tulips in the East is by no means uniform amongst my customers, many reports are satisfactory where a light covering of leaves was given. For instance: Poughkeepsie, often; southern Connecticut, "About as well as garden tulips;" Long Island this past winter; Chicago, and many other places.

An early thaw and a fickle spring are always dangerous to them, but there is no reason why they should not do well at all times in coldframes.

**Brodiaeas.** Of these the same may be said as of *Calochortus* as to hardiness, but they are much more adaptable to changing conditions. For instance, while they will grow in any ordinary garden conditions (exceptions noted under culture), some species, as *B. lactea*, *B. peduncularis*, and *B. grandiflora*, will thrive in very wet soil during their growing season. Reports from northern Maryland are that they seem to have naturalized there.

**Camassias** are perfectly hardy at any point in the East or North. They like moist soil and sun and may be smothered by grass, although strong growers. They should not only do well but get better and self-sow.

**Dodecatheons** are included in this bulb list as the spider-like roots can be handled perfectly dry. I do not believe that *D. Clevelandii* is hardy in the East, but have reason to think that *D. Hendersonii* is. I do not carry the former, but can supply the latter.

**Fritillarias.** From Milwaukee comes a report that *F. recurva* has flowered in the open a third season. *F. lanceolata* is perfectly hardy. *F. pudica* grows in regions where winters are very cold but it must have a very light, open soil. A report from near Boston, for last winter, is that all sorts wintered there well.

**Erythroniums.** From place after place there are uniform reports of both the hardiness of and the success with these lovely things. Colonies in Minneapolis, near Detroit, just out of Boston, in Delaware, and elsewhere have been successful and maintained themselves year after year. They are woodland plants and should have light shade at least, but with us they are found in almost any but marshy soils, and I have seen fine colonies of *E. revolutum* where water ran over the beds for months.

Failures with *Erythroniums* are apt to be from two causes: First, the bulbs when dug dry out rather easily, unless kept in a cool place and in barely moist packing. Then, too, some of the longer bulbs are brittle and break easily in setting. Still, I find that both ends grow.

**Western Lilies** are all hardy at any point in the East, but it must be emphasized that Lilies are not of the easiest culture, or rather that at no place can we be assured of success with all or even a few. This remark is just as true of Japanese and European Lilies. Some sorts are very easily grown in one place and are a failure with more skillful growers a few miles away, and with no traceable cause. But, as a rule, the person who will study their needs can succeed with a goodly number of species.

Of the western species, any fairly careful gardner, following directions, should grow the following species well: *Lilium Humboldtii*, *L. Humboldtii magnificum*, *L. Bloomerianum*, *L. columbianum*, *L. pardalinum*, *L. Roezlii*. The first variety is as easily grown as the others but takes at least a year to become established and to flower, while the second and third always flower well the first season.

*Lilium Washingtonianum purpureum*, *L. Kelloggii* and *L. Rubescens* are not quite so easy, yet most excellent reports come from the East and Northwest as to the first, and *L. Kelloggii* is still better. *L. Rubescens*, too, can be grown well with care.

*Lewisia*s are wonderfully attractive plants for rockwork and well-drained edgings. *L. oppositifolia* and *L. rediviva* are certainly hardy at any point in the East. The others should be, but I am not sure; I would say that a light leaf-covering should insure them.

*Lilium Parryi* is a glorious Lily and can be grown without too much care, but the essentials of a soil rich with mold, yet sweet and well-drained, with always moisture close to the top, must be given.

The three small-flowered Bog Lilies are very hardy but not too easily grown unless directions are closely followed.

*Trilliums* are all hardy at any point.

*Western Lady Slippers* are hardy and can be grown under such conditions as the eastern sorts demand.

## LOCATION OF MY GARDENS AND HOW TO REACH UKIAH

The Terraces, which is the name I have given to my home place, lies in the mountains between Mendocino and Lake Counties, at an elevation of 2,300 feet above the sea and 1,700 feet above Ukiah Valley. It is a wonderful place from a scenic point, and has so many natural beauties that it makes one of the most unique gardens in the world. The Terraces are not of my own making, but are steps in the mountain-side built by mineral deposits. Over these a small stream pours, making endless cataracts and cascades, while the gardens follow the stream for well toward half a mile.

Ukiah is on the main line of the Northwestern Pacific Railway starting at San Francisco and extends to Eureka in Humboldt County, the great redwood region. It is a modern town, with good hotels and all necessary accommodations for the traveler. The California State Highway, which proceeds from San Francisco north to Eureka, and which passes through the wonderful redwood region, goes through Ukiah. It is a fine road, many portions of which are of concrete and asphalt.

From Ukiah to The Terraces is about eight miles. The first four miles are across the valley; the next three miles are up the Lovely Mill Creek cañon, and then a mile of mountain grade. The road has been traveled by hundreds of automobiles, from Fords to the largest touring cars, and no careful driver need fear the trip.

Visitors are always welcome at The Terraces, and will find many objects of interest both in the gardens and along the roadside from Ukiah. It is well for visitors to call me on the phone from Ukiah in order that I may be at home when they call.

## BRODIAEAS

These plants have a small bulb, producing grassy leaves near the ground, and very slender, but stiff, naked stems bearing a head of waxy flowers of great lasting quality. All are pretty. They grow exactly like *calochorti*, and their culture is the same, and just as easy as for that flower. In California they are easily naturalized in almost any soil. Plant them about 2 inches deep, with a trowel or dibble, and leave them alone. They are especially happy under oak or other deciduous trees, in crevices in rocks, or in rough, gritty soils. **Brodiaëas can be shipped from September to January 1.**

The Floral Firecracker, *Coccinea*, is well figured below. The stems may rise to 2 feet, while the flowers are a vivid crimson tipped with pea-green. The resemblance to a bunch of firecrackers catches the eye at once. A group of these bulbs in a mass of ferns or light-foliaged plants is striking, and they do very well potted. They prefer a loose soil, and preferably gritty. Large bulbs will cost you 7 cts. each, 70 cts. per doz., while giant bulbs are worth 12 cts. each, \$1 per doz.

*Brodiaëa Douglassii* porcelain blue flowers. 6 cts. each, 60 cts. per doz.

*Crocea* has light yellow flowers in umbels. 5 cts. each, 50 cts. per doz.

*Laxa* is known as Blue Milla, and has a many-flowered umbel of fine blue flowers. It is one of the best for naturalizing. Very fine bulbs. 6 cts. each, 60 cts. per doz.

**B. Laxa, Blue King**, large wonderfully deep blue. 7 cts each, 75 cts. per doz.

*Lactea* has close umbels of milky white flowers. 5 cts. each, 50 cts. per doz.

*Grandiflora* has a few large, glossy purple flowers of much beauty and great lasting qualities. The bulbs can be naturalized in any clay soil, especially if moist. 5 cts. each, 50 cts. per doz.



**Hendersonii** bears many flowers in an umbel. The ground-color is light yellow with a deep purple band down the center of each petal. 7 cts. each, 70 cts. per doz.

**Brodiaea stellaris** low growing with starry blue flowers with contrasting white centers. Each 6 cts., 60 cts. per doz.

There are several species of *Brodiaea* called California Hyacinths, and a good one is **Capitata**. The stem is slender, capped with a head of violet-blue flowers. They revel in hot, dry places among rocks or in grit, and flower very early. 4 cts. each, 30 cts. per doz.

A most dainty effect can be had by copying nature. Plant 12 to 50 **B. laxa** in a pocket in rockwork, especially where there are ferns or light, airy greens; they will thrive in either sun or shade. **B. grandiflora** is wild in grassy meadows; if the grass is not too heavy they give a sheet of lovely purple in June. It takes quantities to produce this effect—several thousands at least—but they are cheap.

The culture of *Brodiaeas* in the East is as for *Calochorti*, and they are about as hardy. They all do well in pots. *Brodiaeas* are fine cut-flowers and wonderfully lasting.

**Mixed Brodiaeas**, 40 cts. per doz., \$3 per 100.

**Brodiaea Collection.** 100 bulbs, 5 varieties, my selection, \$3.50; 50 bulbs, \$2.00.

*Brodiaeas* are well worth a place in any bulb garden. They are very lovely in blues and lavenders, and the flowers either on the plant or as cut flowers are wonderfully lasting.

Their stems are so long and slender that it is difficult to show their full charm in a picture.



1—*Brodiaea Hendersonii*  
2—*B. capitata*  
3—*B. laxa*  
4—*B. volubilis*

Sow Wild Flowers in bare places.  
(See last page.)



*Camassia Leichtlinii*

From a Cleveland, Ohio, Amateur: "The Camassias made a sturdy growth, more than 4½ feet in height, covered with bloom and lasting longer than almost any plant (bulbous) that I know of. I made the mistake of planting them solitary. In future will make large groups."

## CAMASSIAS

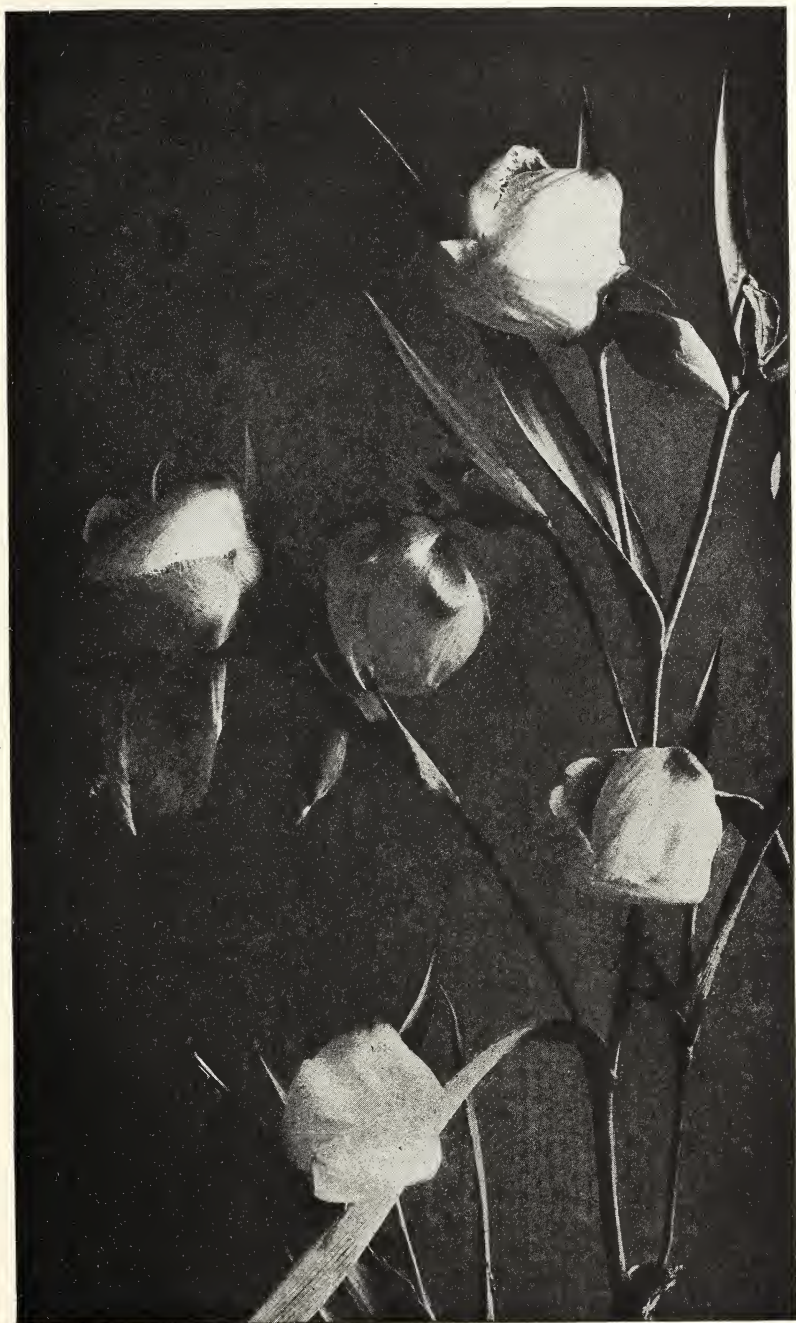
Whether on the Pacific Coast, in the East, or in Europe, there are few bulbous plants which meet climatic or soil conditions better, or give a more attractive bloom. They are hardy without protection, and thrive either under ordinary garden conditions or when naturalized in open moist woods, or on the sides of ponds or streams, or in not too dense a grassy growth. In the West they thrive where they are submerged all winter. Alleastern and European customers praise them highly. It is better to plant them not over 4 inches apart in masses of from twelve to hundreds. Plant from October to January in any fair soil, and 3 to 4 inches deep. Water liberally when growing and in flower, but it does not matter whether they are dried off afterward or not. The foliage is excellent. Not necessary to lift when done flowering. They can be left alone for years.

*Camassia esculenta* is a purple form. Rich in color, and grows as high as 2 feet in the best soils. Showy in masses. My prices, 5 cts. each, 50 cts. per doz., \$3 per 100; flowering bulbs to naturalize, \$15 per 1,000, not delivered.

*Camassia Leichtlinii* comes in two colors. In deep blue, it is a fine plant that may grow to 4 feet in height, with as many as a hundred flowers, of the finest, even form, star-shaped, and as large as an inch and a half across. It flowers in long succession. These at 8 cts. each, 80 cts. per doz., or \$6 per 100. In cream-color, *Leichtlinii* is as large as in blue, but with the different colored flowers. It, too, is a very fine plant, and when well established, reminds one of the *Eremuri*. 8 cts. each, 80 cts. per doz., or \$6 per 100.

Reports from delighted customers in all sections of the United States justify me in emphasizing both the hardiness and beauty of Camassias. On account of their height, a picture fails to do justice to the flowers.

Camassias are ready from September to January 1. Best planted in late September and early October.



*Calochortus albus*, or the *Fairy Lantern* (see page 6).





*Calochortus Maweanus* (white), dainty and beautiful, 4 to 10 inches high; *C. benthamii*, yellow; *C. lilacinus*, lilac; *C. Purdyi*, white and much larger than others. Dainty plant for shaded nooks or rockwork in little colonies.

## CALOCHORTI

These are lovely bulbous plants, which are best described under the separate groups. See page 3 as to hardiness in the East.

### Section I. GLOBE TULIPS

Words convey only a faint idea of these flowers. Their form is similar, but there is a great difference in color. All are exquisite in tints and the perfection of grace in form. The plants are rather tall and slender, with leaf-wrapped stems of odd shape. They are natives of woodlands, delighting in loose soils and liking leaf-mold and light shades. At the same time, most of them will do well in heavy soils, and are fine subjects to naturalize among rocks or in shaded woods. In the East, as well as the West, they succeed very well if given the care suggested in cultural directions.

Globe Tulips are very satisfactory for pot-plants, and a colony of six to twelve makes a most beautiful mass of color.

**Albus, Fairy Lantern.** White. 5 cts. each, 50 cts. per doz.

**Amabilis.** Rich yellow. 5 cts. each, 50 cts. per doz.

### Section II. STAR TULIPS; CAT'S EARS

Slender woodland plants well shown in photograph above. Fine for naturalization in rockwork and woodland.

**Benthamii**, bright yellow; **Maweanus major**, white; these at 5 cts. each, 50 cts. per doz. **Maweanus roseus** is another form with flowers delicately tinted pink. 5 cts. each, 50 cts. per doz.

**Calochortus lilacinus** is low growing with clear lilac flowers of much beauty. Not hairy inside. 5 cts. each, 50 cts. per doz. All above at \$3.50 per 100.

All Globe and Star Tulips at \$3.50 per 100.

100 Globe and Star Tulips (25 bulbs each of 4 varieties) for \$3.50, 1/2 collection \$2.

Delivery September 1 to January 1 only.

Friends of mine in Wisconsin, to whom I sent *Calochortus albus* and *C. amabilis*, were delighted with the blooms.

### Section III. TRUE MARIPOSA, or BUTTERFLY TULIPS

Until one has seen a good collection of these plants, he has no idea how much nature can do in the variation of one flower. All Mariposas are simply forms of *Calochortus venustus*, yet there are six well-marked strains, all with the slender grace of stem belonging to the species.

Cup-shaped flowers, one to many on a stem, wonderfully marked with eyes and dots and pencilings in rich colors, are characteristics. Yet each strain carries out the plan on a color scheme of its own, and then can be compared only with the orchids in wonderful variability of beauty.

"Mariposa" is simply the Spanish word for butterfly, and is applied to these Tulips because the eyes and markings of the flowers are so much like those on a butterfly's wings. It is a musical word given to a county and to a town in California, and we would hardly like to give it up for its English equivalent.

#### VESTA STRAIN

Likes full sun and will grow best in heavy soils. It is a species of my own, found on heavy clay soils, is the best grower of all *Calochorti*, and will succeed in almost any ordinary soil. It is a most superb thing, with great 3- to 5-inch flowers, borne on long, separate stalks; very numerous.

The color is white, flushed with lilac or rosy purple, red at center, and purple on backs of petals. I think this the best of all *Calochorti*. Reports from European growers put it in the first rank. The fine photograph shown on page 11 does it no more than justice. I have very large bulbs at 10 cts. each, or \$1 per doz.; good bulbs at 7 cts. each, or 60 cts. per doz., and small bulbs to naturalize at \$3 per 100. (See picture, back cover.)

#### ELDORADO STRAIN

The plants of this strain grow from 1 to 2 feet high and branch. The flowers are simply marvelous in their variety of colors and markings. Scarcely two are alike; in a mixed lot they may vary through white, lilac to purple and again through shades of pink to deep claret-red. No plant subjected to the hybridizer's arts shows wider or more beautiful variations. There is no better investment for the flower-lover than a quantity of these bulbs. They thrive best in a rather porous soil, either sandy or gritty, and will grow either in sun or light shade. Flowers are 2 to 4 inches in diameter. Mixed colors, at 6 cts. each, 60 cts. per doz., \$4 per 100.

#### OCULATUS AND CITRINUS

These are most satisfactory flowers. *Oculatus* is wonderfully varied in whites and creams. The eye is large and richly zoned, the pencilings about the base are very delicate. I have had the flowers 4 inches across. The plant is a good grower. 6 cts. each, 60 cts. per doz., \$4 per 100.

*Citrinus* differs only in the color. The flowers are deep, rich yellow, with almost black eye. It is most excellent, and is in great demand where best known. 6 cts. each, 60 cts. per doz., \$4 per 100.

#### MARIPOSA TULIPS IN MIXTURE

A mixture of fine Mariposa Tulips for 50 cts. per doz., and \$3.50 per 100.

A collection of lovely Mariposa Tulips, 100 bulbs, in four varieties, my selection, for \$4.00, ½ collection for \$2.25. See page 24.

#### VARIOUS SPECIES OF MARIPOSA TULIPS

There are on the Pacific Coast of North America, from British Columbia to far down in old Mexico, a wonderful series of other Mariposa Tulips. They must be seen in order to realize the superb variations. At this time I can offer only the following fine species.

*Calochortus clavatus* carries bowl-shaped blooms, 4 inches or more across. The color is deep yellow, and the lower half of the flower is covered by stiff yellow hairs. 15 cts. each, \$1.50 per doz.

*Catalinea*, a lovely white flower tinted lilac with conspicuous purple maroon spots at base of petals. 12 cts. each, \$1.25 per doz.

*Howellii* grows about 8 inches high, bearing large white flowers with green hairs on the lower, inner portion; a wonderfully beautiful flower. 15 cts. each, \$1.50 per doz.



*Calochortus clavatus* (see page 8)



**Leichtlinii** grows in the high Sierra and is usually not over 6 inches high, with smoky white flowers vividly marked with almost black. 7 cts. each, 70 cts. per doz.

**Macrocarpus** is of the sage-brush regions of the Great Basin. The stem is stiff, with exquisite lavender flowers of large size, tinted green on the reverse. 12 cts. each, \$1.25 per doz.

**Plummeræ** is a wonderfully beautiful flower of a shade of lavender, with long, silky hairs covering the interior. A large sort with flowers up to 5 inches across. 15 cts. each, \$1.50 per doz.

## CULTURE OF CALOCHORTI IN CALIFORNIA

Let the bed be slightly raised, with the drainage perfect. A rise of 3 inches with a slight slope will assure this.

**Soil.** No fresh manure must be used, but any loam will do, although sandy loam best meets the needs of the greater number of species. Still, clay loam, gritty soil, or even adobe, if lightened with sand, grit, spent tanbark or leaf-mold will give good results. The most satisfactory results are obtained with a soil that is light and porous, not made too rich with fertilizers, and providing thorough drainage. These requirements can be secured very easily in almost any garden, and the results justify all efforts expended in securing proper conditions. If only a few dozen are grown, it is really better to plant them in a flat box, when 10 inches of soil is ample.

A customer living in the Piedmont region, east of San Francisco Bay, has had great success year after year in a soil patterned after that used in England. Here is the composition: 2 parts any loam, 1 part sand, 1 part the fine road grit, such as is used to dust over the oiled surface of roads for a finish. Mix well, and a depth of 10 inches is ample.

Other customers in the eastern bay region have had excellent success with no preparation of the prevailing loam.

**Time to Plant.** Plant as soon after October 1 as possible, and not later than January 1.

**Depth to Plant.** Two to 2½ inches is ample.

**Distance Apart.** They will thrive 2 inches apart each way.

**Water.** During our winter and early spring the rains are sufficient, but if the late spring is dry, keep the ground barely moist after April 1, and water liberally when the buds show for bloom.

**Care of Bulbs after Flowering.** If the bed can be left dry all summer, do not dig the bulbs, and they will come up again in the fall. They should not be watered during the summer, and if the bed is where watering is done, it is better to dig the bulbs and store them without packing material in paper bags, in any dry, cool place. One advantage of planting in a box is that the box can be put in a dry place and the bulbs left undisturbed. A box 2 x 3 feet will hold 50 to 75 bulbs.

**Gophers.** These troublesome rodents are very fond of Calochortus bulbs as well as of tulips. If they cannot be poisoned or trapped, they can be kept out in several other ways. I have found that an underground fence made of 2-inch planks set 2 feet deep with an inch above the surface will keep them out. Another method is to make a fence of wire screening of three-fourths-inch diamond mesh underground. This can be had 2 or 3 feet wide. Still another good way is to make a large sunken box, with only the top of the side-boards showing above the ground; 10 inches is deep enough. Such a box can have a bottom of wire mesh or roofing tin.

**Pot Culture.** See page 12.

## IN THE EASTERN UNITED STATES

Calochorti will endure the coldest weather in the eastern United States, but suffer from premature thawing followed by freezing.

I think that the soil mentioned above, using one-third grit, would be the very best for the eastern United States.

(1) **In Open Ground.** Miss U., living along the Hudson River, has been successful every year with many varieties. She writes:

"I have again had splendid success with my California bulbs, and have flowered every one. I planted them the first of November in rather sandy soil. The bed is well drained and in quite a sheltered spot. It gets the full sun until about three o'clock in the afternoon. Before the ground freezes hard, I give it 3 or 4 inches of dried leaves. These are removed in the spring when all danger of heavy frost is over.

"I have found it a good plan to have a few leaves around the shoots for a while and to keep some extra leaves at hand at night when the frost threatens. In this way, I have succeeded delightfully with the Venustus varieties, the Globe Tulips and Gun-

nisoni. My bed of Erythroniums was a perfect success. The Globe Tulips always give a good account of themselves."

(2) **In Coldframes.** With any ordinary care, all Calochorti can be grown splendidly in coldframes. They should be treated exactly as for open beds, except the soil will be better with some leaf-mold. Do not coddle, but simply protect from freezing and thawing. After ripening, keep the sashes on all summer so that they will stay dry.

I have glowing reports from customers who have grown them this way.

(3) **In Pots.** While they cannot be forced much, they can be grown in pots fairly well as follows: Use a sandy or loamy soil with good drainage. Plant  $1\frac{1}{2}$  to 2 inches apart, which will give six to twelve to a 6-inch pot. Moisten the soil and put the pot in a dark place, a cellar preferred, for about six weeks, to let them root. Then bring into a warm, sunny place and water moderately. After flowering, let them ripen well and then dry off and leave perfectly dry until fall.

## FRITILLARIAS

Fritillarias are bulbous plants of the woodlands. The stems are leafy and most graceful, with many pendent bell-like flowers. One species found in Southern California is called "Mission Bells" while in other places local species are called Brown or Chocolate Lilies, a name quite justifiable, as Fritillarias so closely approach true lilies in character that some species have been confused with them.

In the West there are two types: The true Mission Bells do better in a clay soil in full sun. The woodland Fritillarias like woodland soils and conditions, and in cultivation some shade and a free soil. They have proved hardy as far north as Wisconsin where *F. recurva* has flowered three years in succession in the open, and they winter at Montreal. This is hardly a matter for surprise, as *F. lanceolata* is a southern form of *F. camtschaticensis* which is found in Alaska and crosses into Siberia.

*Glaucia* is related to *Pluriflora*, grows to about 10 inches with broad greenish-white bells. Quite odd and new. 10 cts. each, \$1.00 per doz.

*F. lanceolata* is from  $1\frac{1}{2}$  to 3 feet high, with few to many flowers. They are green and brown mottled prettily. Very large bulbs, 20 cts. each, \$2 per doz.; good bulbs, 10 cts. each, \$1 per doz.

*F. recurva* much resembles a lily. In size and habit like *F. lanceolata* with orange-scarlet flowers. Same price as *F. lanceolata*.

*F. pudica* is of still a different habit. A low plant with a single clear bright yellow bell. It is from the arid regions of the Great Basin. Likes sandy or loose soils. 10 cts. each, \$1 per doz.

*F. parviflora* is a little like *F. lanceolata* with small pendent purplish bells. Foliage attractive. 10 cts. each, \$1 per doz.

Fritillarias have an odd habit of having two entirely different sorts of leaves. If they do not flower they have a single, very large leaf; if they do, they do not have this leaf at all, but circles of leaves around the flowering stem. They are not steady bloomers, but are apt to rest the year after flowering. It is my endeavor to send only flowering bulbs, but there is no way in which I can be sure to do so.

See "Novelties" for *F. Purdyi* and *F. Biflora*.

*Fritillaria recurva*.  
The finest of the  
world's Fritill-  
larias; orange and  
scarlet.





*Dog's-Tooth Violets of the Revolutum type are strong-growing, with longer, stiffer stems than the other sorts. The type is white, with purplish tints often changing to purple. Pink Beauty is a soft lilac-pink and exquisite, while Johnsonii is the soft rose-colored form. Very distinct from any other Erythroniums.*

Our Front Cover Page is of a garden in Portland, Ore., which won much admiration. It belongs to Mr. O. M. Ash of Portland. The star feature in this garden were Dog's-Tooth Violets which I had supplied. They will be seen in the center near the brook.

This picture admirably shows the conditions best for these lovely flowers.

First, shade of deciduous trees; second, moderate moisture.

Mr. Ash prepared his soil as follows:

The naturally loamy clay was mixed with concrete sand and leaf mold in about equal proportions, and to the depth of one foot. The bulbs were planted 6 inches deep (base of bulb). Every fall the top surface is given a dressing of leaf mold scratched in.

## DOG'S-TOOTH VIOLETS

### (Erythroniums)

The charm of these most beautiful woodland plants is well pictured on the front cover. If they had no other beauty than that of their richly mottled leaves, they would be well worth a place in the shady corner. Their flowers are indeed very fine, and, in the western species, often 3 inches across, with stems at the most 18 inches high, although oftener from 3 to 6 inches. The colors run in delicate tints of white, pink, cream, bright yellow and even rose. They are hardy in the coldest parts of the United States, and while they are at their best in a loose, gritty soil, rich in leaf-mold, they also thrive in the greatest variety of clays, grits, and rocky soils. In woodlands, in shaded corners, or in the crevices of rockwork in shade, is the place to naturalize them; they should carpet the ground.

**Culture.** I keep the bulbs in a cool place and in barely moist soil. When you receive them, plant at once in moist soil. When the bulbs are out of the ground, they soon suffer from overdrying. Any loamy or gritty soil will do and light shade is preferable. In planting, set the bulb upright, with 2 to 3 inches of soil covering the tip—2 inches apart will give room enough.

Dog's-Tooth Violets can be grown in pots or coldframes to good advantage. For potting, **E. Hartweggii** is best. Customers of mine in Michigan, Minnesota, Massachusetts, Ohio, and Delaware, as well as at Pacific Coast points, have had great pleasure from Colonies of my Erythroniums planted in woods or other lightly shaded locations.



It is not necessary, for such purposes, to use the superfine quality that I supply under regular list. To meet such needs I am offering bulbs for naturalization (see page 14). These bulbs are not graded, but come in the natural proportions of large and small, and over 70 per cent will bloom.

I deliver soon after September 1.

Really the only particular point is in handling the bulbs carefully so that they are in good condition when planted. Where there is fair summer moisture in the soil, they can be planted as soon as received from me.

It is needless to quote from the many letters we have received commenting on the good behavior of *Erythroniums* almost everywhere. Customers from Montreal to Washington, D. C., and from Minnesota to Boston, are unanimous in their testimony that they are hardy, thrive without any extra care, and stay year after year, giving great pleasure with their exquisite flowers.

All of the eastern species produce offsets freely and seem to dissipate their energies in that way, so that a large bed may give little bloom. Of the western species, only **E. Hartweggii** offsets at all, propagation being from seeds only, and the yearly percentage of bloom is high—even up to 100 per cent from mature bulbs.

The flowers of **Californicum** are cream-colored, often with four or five on the stem. Leaves richly mottled. Easy to grow, and a large colony is a beautiful sight. Large bulbs, 5 cts. each, 50 cts. per doz., \$3.50 per 100; smaller bulbs cheaper.

**Californicum, White Beauty**, is an exquisite form of the above species; flowers almost white, richly banded maroon at the base. 10c each, \$1 per doz., \$7.50 per 100.

**Citrinum**, a native of southwestern Oregon, is rather stouter in habit than the last; flowers creamy at the outside, citron center. 5 cts. each, 50 cts. per doz., \$3.50 per 100.

**Grandiflorum robustum** is a superb species with flowers of the brightest buttercup yellow. The leaves have no mottling—just plain green. It always attracts attention. 5 cts. each, 50 cts. per doz., \$3.50 per 100.

**Hartweggii** is as pretty as *Californicum*, with more yellow in the flower, and each flower on a separate stalk. Very early and stands much heat. Good for pots. Large bulbs, 5 cts. each, 50 cts. per doz., \$3.50 per 100; smaller bulbs cheaper.

**Hendersonii**. Like *Californicum*, but the flowers are a lovely light purple, with the centers a deep maroon, almost black. Most striking. 5c. each, 50c. per doz., \$3.50 per 100.

**Howellii** is related to *Citrinum*, creamy with a yellow tint, but turns pinkish with age. 6 cts. each, 60 cts. per doz., \$5 per 100.

**Purpurascens**, of the mid-Sierras in California, has smaller flowers than the preceding, which are yellowish, tinted purple. 6 cts. each, 60 cts. per doz., \$5 per 100.

**MIXED ERYTHRONIUMS** from above sorts. A fine mixture at 40 cts. per doz., \$3 per 100, \$25 per 1000.

## REVOLUTUM, DOG'S-TOOTH VIOLETS

The stems are long, the flowers large and exquisitely tinted, often single, never more than four to the stem, and the leaves are mottled in white and green. While the plants thrive in garden loam, they do well in heavy soils which are quite wet in winter.

**Revolutum** is a very fine species with large flowers which, on opening, are white, tinted lilac and may become purplish. The stems are very stout, sometimes 18 inches high, and one- to four-flowered. It will thrive on soil wet in winter. 10 cts. each, \$1 per doz., \$7.50 per 100.

**Revolutum Cream** is a fine cream color. 10 cts. each, \$1 per doz.

**Revolutum, Pink Beauty**, is like type, but a soft pink with an occasional white. Very lovely wild type from Northwestern California. 12 cts. each, \$1 per doz.

**Revolutum Johnsonii**, or **E. Johnsonii**, is perhaps the most lovely of all *Erythroniums*. With the stout habit of this group, it has exquisite rose-pink flowers. From the coastal region of Oregon. 10 cts. each, \$1 per doz., \$7.50 per 100.

**Watsonii** is also known as *Giganteum*, and is hardly of this class. It has white flowers, beautifully toned with brown. 5 cts. each, 50 cts. per doz., \$3.50 per 100.

Flowering season of *Erythroniums*. All are among the earliest flowers. **E. Hartweggii** is notably early, the **Revolutum** group latest. The entire season is over a month which is here from February to April 15. In the East I would say from April 1 on.

**Mixture of Forms of Erythronium Revolutum** at \$1 per doz., \$7.50 per 100.

**Erythroniums ready from September to December 1. Early planting is desirable.**

I will make a choice collection of *Erythroniums* in 5 species, each named, 100 bulbs, for \$3.50.

### NAMED ERYTHRONIUMS FOR NATURALIZATION

We offer a smaller size of *Erythroniums* for naturalizing. Experience in our garden shows that up to 70 per cent will flower the first year. Unusual value.

	100	1,000	5,000
<b>Californicum.</b> Cream .....	\$1.50	\$10.00	\$37.50
<b>Citrinum.</b> Cream and lemon.....	2.00	15.00	62.50
<b>Grandiflorum Robustum.</b> Buttercup yellow.....	2.00	15.00	62.50
<b>Hendersonii.</b> Lavender .....	2.00	15.00	62.50
<b>Johnsonii.</b> Rose pink.....	6.00		



*Lilium Humboldtii.* One of the grandest of the world's Lilies. The type: orange, spotted maroon. The easily grown variety *Magnificum* is the same, richly eyed with scarlet.



# CALIFORNIA LILIES

In number and beauty of its Lilies, California ranks next to Japan.

## LILIUM HUMBOLDTII AND ALLIED SPECIES

**HUMBOLDTII.** A grand Lily, growing as tall as 10 feet, but usually 4 to 5 feet high, with very stout stem and many large, orange-red flowers, spotted with small maroon spots. This species does well in the adobe soils prevailing about San Francisco Bay. Immense bulbs, 50 cts. each, \$5 per doz.; fine bulbs, 40 cts. each, \$4 per doz.

**HUMBOLDTII MAGNIFICUM.** A grand species differing from preceding in having darker foliage, and in the spots on the flowers, each surrounded by a circle of crimson. Splendid growing and flowering qualities. It is sure to flower the first year after planting, and is a splendid grower. None better. First size, 50 cts. each, \$5 per doz.; fine bulbs, 40 cts. each, \$4 per doz.

**HUMBOLDTII BLOOMERIANUM.** Like the preceeding in color and flowering qualities, but with a very small bulb and a small stem. Very pretty. 40 cts. each, \$4 per doz.

**BOLANDERI.** One of the rarest of Lilies; 1 to 3 feet high, slender, with bell-shaped, deep crimson-red flowers, dotted purple. 50 cts. each, \$5 per doz.

**COLUMBIANUM.** Like a miniature *L. Humboldtii*. Bright golden yellow, spotted maroon, 2½ to 3 feet. Good. 30 cts. each, \$3 per doz.; very large, 40 cts. each, \$4 per doz.

## LILIUM WASHINGTONIANUM AND NEAR SPECIES

**WASHINGTONIANUM PURPUREUM.** The fine halftone on page 16 shows the flowers to perfection as to form. They are from white to a rich wine-color, and change after opening; often 6 to 7 feet high, with a stout stem and many leaves, and as many as twenty-five very fragrant flowers. The bulbs are easily handled, but will not give a good bloom the first year. The Shasta Lily is a variety of this one. Large bulbs, 8 to 9 inches in circumference, 50 cts. each, \$5 per doz.; small, 40 cts. each, \$4 per doz.

**RUBESCENS (The Redwood or Chemise Lily).** A beautiful and very distinct kind, having tall, slender stalks and exquisitely fragrant flowers of a tubular shape. In opening, they are white dotted purple, but soon change to deeper purple, and all colors between white and purple will be seen on one stem. To succeed with this, drainage must be perfect. 40 cts. each, \$4 per doz.; very large, 50 cts. each, \$5 per doz.

**KELLOGGII.** Three to 4 feet high with a slender stem and from three to fifteen flowers with pink, revolute petals. Very fragrant, 50 cts. each, \$5 per doz.; very large, 60 cts. each, \$6 per doz.

## CULTURE OF GROUP I

The Lilies of the *Humboldtii* and the *Washingtonianum* groups are natives of cool slopes in mountainous regions, where they grow in forests, or where protected by a growth of shrubs. The soil is deep, perfectly drained, composed of clay or a rich loam, mixed with leaf-soil and the debris from broken-down rocks. In cultivating these Lilies, we should take lessons from nature.

**Situation of the Lily-bed.** They should be planted where they are protected from cold winds and where the soil is not dried out by the direct heat of the sun. On large grounds, the idea location is a glade in the woods. The partial shade of deciduous trees, the shelter of rhododendrons or bamboos, or similar shrubs, or of tall-growing perennial plants, may give conditions quite suited to their culture. A protected nook on the shady side of the house is best on small grounds, and ferns are congenial neighbors.

**Drainage.** This must be perfect. If the ground is heavy and clammy, underdrainage should be given, and the soil made lighter and looser by the addition of humus.

**Soil.** This should be a fairly good loam, mixed with humus and sand. New manures are always to be avoided with Lilies.

**Planting.** They should be planted so that the top of the bulb is not less than 4 inches from the surface; about each bulb put a layer of an inch or so of sand which will carry away excessive moisture and prevent fungous attacks.

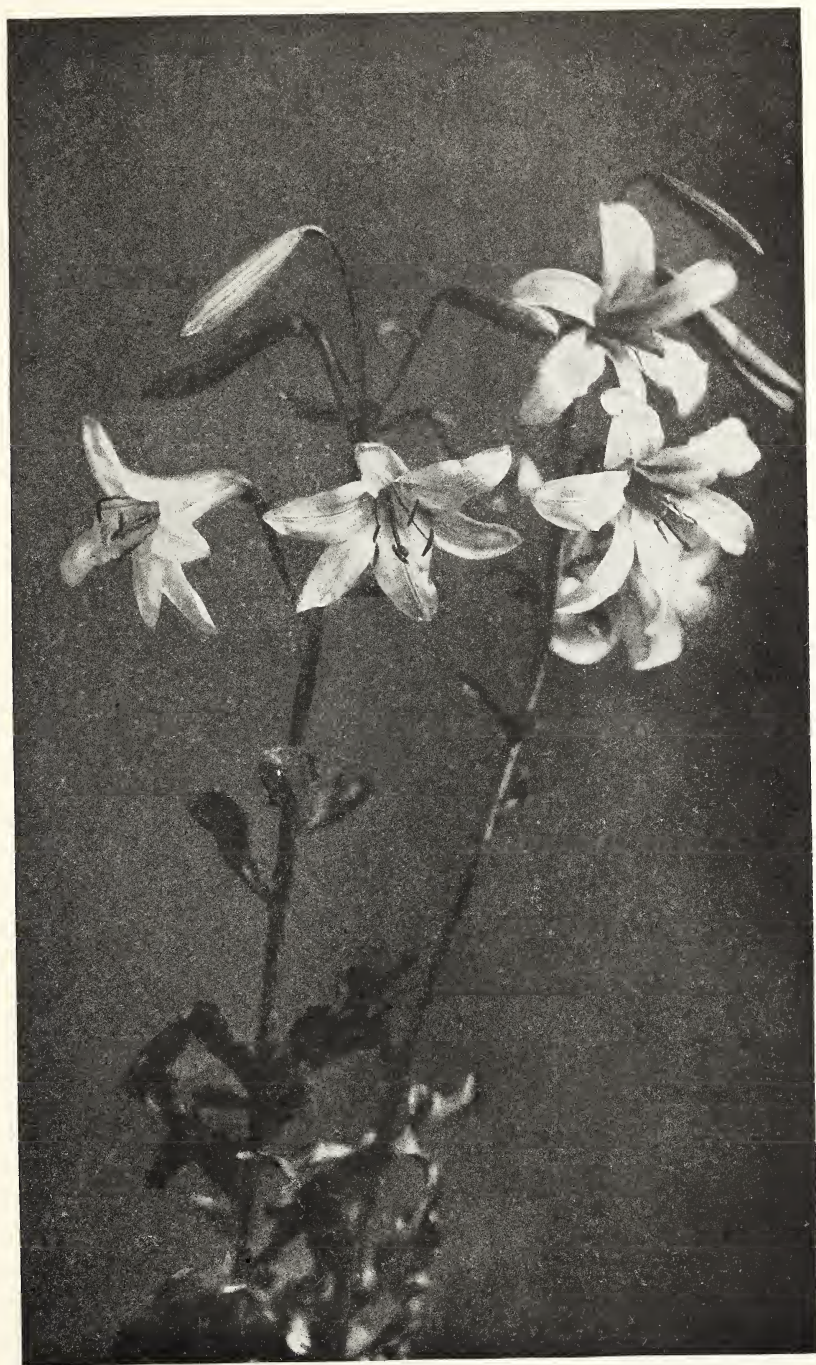
**Watering.** Lilies should not be kept water-soaked, but should have a moist surface during the growing season. Keep rather dry after they have flowered.

**Never move a Lily bulb unless absolutely necessary.**

My very best success with Lilies of this group has been in a very loose, gravelly soil, rich with leaf-mold, and with water running above and percolating under the roots.

A little money spent in Wild Flower Seeds and a very little care will make beauty spots of your odd corners. (See inside last cover page.)





Washington Lily, *Lilium Washingtonianum purpureum*. A grand Lily, opening white and gradually turning purple.

## LEOPARD BOG LILIES

**PARDALINUM.** This is one of the best Lilies for the garden. It grows well in any loam or gravelly soil, in sand, or lighter clays, as long as given some shade and water. The stout stems are very leafy and from 3 to 6 feet high, and the many large and very showy flowers are richly colored with orange centers and crimson tips, with many spots in the central section. No Lily is more likely to give satisfaction in the garden. This is the Tiger Lily of the coast range canyons in California. Good, 25 cts. each, \$2.50 per doz.; large, 35 cts. each, \$3.50 per doz.



*Forms of the Leopard Lily the best of all Garden Lilies. It thrives in any good garden soil, and will hold its own for many years. A most showy Lily; 3 to 8 feet high.*



**Parviflorum** (*Pardalinum* var. *minor*) is a very pretty, slender species growing to as much as 6 ft. with many blossoms.

The petals are revolute like *Pardalinum*, yellow, finely dotted maroon at center, crimson on upper half. Quite fragrant. This is the Tiger Lily of the Mt. Shasta region. Large bulbs, 50 cts each, \$5 per doz. Good bulbs, 40 cts. each, \$4 per doz.

**PARRYI.** This is one of the world's finest species. The slender, leafy stem is from 3 to 5 feet high and bears from a few to 25 long, trumpet-shaped, lemon-yellow, sweetly fragrant flowers. In some forms, the center is faintly dotted brown; in others solid. Giant bulbs, \$1 each; fair bulbs, 50 cts. each, \$5 per doz.

**ROEZLII.** Stem slender, leaves crowded, very long and slender; the closely revolute perianth is a clear reddish orange, dotted maroon. Needs to be well massed to get its best effect. As it grows quite tall, it can be planted in low places. A rare Lily; long lost, but reintroduced by myself. 50 cts. each, \$5 per doz.

**ROEZLII, Crimson Form.** This is like the type, but the flowers are a deep blood-red, lightly dotted maroon. With its long and very slender foliage, *L. Roezlii* is always fine. 50 cts. each, \$5 per doz.

#### Small-flowered Bog Lilies

**PARVUM.** A charming little Lily, which, under favorable treatment, grows 5 or 6 feet high, with many small, bell-shaped flowers. It is orange at the center, with crimson tips. From the sub-alpine regions about Lake Tahoe. 40 cts. each, \$4 per doz.

**PARVUM LUTEUM.** A taller variety, with clear yellow flowers, 40 cts. each, \$4 per doz.

**MARITIMUM,** of the bogs of the coastal portion of Mendocino County, Calif., is related to *Parvum*, but with the deepest crimson-colored flowers only lightly dotted in the throat. The foliage, too, is deep green. A very rare Lily. 50 cts. each, \$5 per doz. for my first size bulbs; I have good bulbs at 40 cts. each, \$4 per doz.

#### CULTURE OF GROUP II

The second group into which I would divide California Lilies as to culture comprises all of the so-called Bog Lilies. The *Pardalinum* and *Parvum* groups are so classed.

These Lilies grow naturally along the banks of small, living streams, on the borders of lakes and ponds, in deep, alpine meadows, on the borders of or on raised hummocks in bogs. Their bulbs are not so deep as the others, and they are more dependent upon surface moisture. The soil in such places as I have mentioned is always rich in rotten leaves, and usually sandy; sometimes it is peat or pure humus. Low shrubs or tall plants protect surface from heat.

**Drainage.** The fact that they like moisture does not mean that they like a water-soaked soil. Many failures with Bog Lilies are due to this error. If the roots can go down to moisture, all the better, but don't put the bulb in wet, gummy soil.

**Soil.** A light, sandy loam, mixed with leaf-mold or peat, is the best possible.

**Situation.** My description of the natural habitat will suggest the best location where large and varied grounds give a choice. On the margin of a pond or brook, planted a foot or so above the water-level in moist, meadow-like expanses in sheltered places, or damp openings in woods are ideal locations. In small grounds, a hydrant can be so arranged as to give a constant drip; the fern corner is good, and the rhododendron bed is perfectly adapted.



*Lilium  
Parryi*





*Trillium sessile increases and becomes more valuable year by year*

## TRILLIUMS

Trilliums are very attractive plants of the Lily family. The forms known as Wood Lilies or Wake-Robins are well known in the East and are fine woodland plants. Of these, the best is *T. grandiflorum*, to be had from most eastern dealers. In the forms of *T. sessile*, we have an altogether different tribe and a much better one from the standpoint of easy culture and ability to hold their own for years in the garden. There is a colony of Trilliums at Ukiah which, with no care, has increased in beauty for at least fifteen years, and I have seen many such.

### Soils Preferred and Characteristics

A better plant for the shaded corner, damp woodland, border of streams, where the soil is moist, or for the shaded parts of the garden, does not grow. It takes a year for them to take hold, but they will then improve for years. There is no better bulbous plant to naturalize, and I have them in perfection in gravel, loam, sand and heavy clay, and in each case, with no care whatever, and with our dry California summer.

**SESSILE CALIFORNICUM.** A strong plant a foot high, with the separate leaves  $5\frac{1}{2}$  inches long, by  $4\frac{1}{2}$  inches wide, and the petals  $3\frac{1}{2}$  inches long. Flowers pure white. Very fragrant. Forms masses of many individuals. See beautiful cut on page 3.

**SESSILE RUBRUM.** Narrow petals; deep maroon-purple to reddish purple.

**SESSILE, Snow Queen,** is a pure white form of *T. sessile*, having broader petals and larger flowers. Easily the best of the Trilliums.

**OVATUM.** Nearly related to the eastern *T. grandiflorum* but larger. Flowers open pure white, gradually tinge pink, and finally become deep wine-purple. Requires leaf-mold and shade. For the redwood regions the best to naturalize. None of the Trilliums are finer than *T. ovatum*; the change in color is an added charm.

Fine bulbs 7 cts. each, 70 cts. per doz., \$5.50 per 100. Very large bulbs 12 cts. each, \$1.25 per doz., \$9 per 100.

**RIVALE.** A most dainty little sort from southwestern Oregon and very rare. The delicate mauve flowers are borne on separate stems, and the plants at most are 6 inches high. 10 cts. each, \$1 per doz.

## WESTERN LADY'S SLIPPERS (Cypripediums)

In the Far West we have three true Lady's Slippers, and *Calypso borealis* and *Epipactis gigantea* so closely related that they are popularly taken for Lady's Slippers.

**Culture.** The usual soil is a fairly well-drained woodland soil, either clayey, sandy, or gritty, with moderate admixture of leaf-mold, always sheltered, shady and moist.

**CALIFORNICUM** is a true bog plant, found only in nature in wet bogs of the northern mountains, or in the streams issuing from such bogs, and having a rather sandy peat soil. It makes strong clumps, with stout leafy stems 18 inches to 2½ feet high, with rather small (proportionately) yellow flowers. Strong roots (divisions) 50 cts. each, \$5 per doz.; clumps, undivided, at 15 cts. the eye.

**MONTANUM** is a mostly lovely Orchid, found in the forest region from Sonoma County, Calif., northerly. It is not unlike the eastern *C. pubescens* in habit. The large flowers have white sacs and brownish sepals. Very fragrant, with the odor of vanilla. Extra strong plants, 50 cts. each, \$4 per doz.; good plants, 40 cts. each, \$3 per doz.

**FASCICULATUM** is a low-growing sort, with much the same habits as the preceding, but the flowers are brownish. Quite interesting. This variety is offered at the same prices as Montanum.

**CALYPSO BOREALIS** is an exquisite little Orchid often taken for a Lady's Slipper. It is almost always found either in mold and moss on rotted logs or in like soil on the ground in shaded woods. It does not root in the ground; the root is a little white bulb. It is not difficult to flower the first year. 20 cts. each, \$2 per doz.

**EPIPACTIS GIGANTEA** is a strong-growing Orchid which spreads by underground runners to form large, close masses. It loves a silty loam near water, and its many racemes of brownish Lady's Slippers are quite ornamental. Culture is not at all difficult. 20 cts. each, \$2 per doz.

I have not heretofore listed Lady's Slippers at retail, although I have for many years supplied them for export trade. No one can say that the culture of these Orchids is easy. I would not advise anyone who is not willing to take pains with them to buy.

I can and have naturalized *C. montanum* most successfully under conditions not at all exceptional. *C. fasciculatum* also *C. californicum* is not easy with me. *Epipactis gigantea* is very easy, and *Calypso borealis* is easy the first year if planted in mold and moss in a very sheltered place.

## CYPRIPEDIUMS FROM THE EASTERN UNITED STATES

I am able to supply excellent plants of these desirable Lady's Slippers. The culture is the same as for the western species.

**Cypripedium acaule** is often called the Red Lady's Slipper. A single large and handsome flower is born on a stem 1 foot or so high, which rises from two broad leaves. 1 to 2 crowns, 25 cts. each, \$2.50 per doz.; 3 to 5 crowns and very heavy, 50 cts. each, \$5 per doz.

**C. pubescens.** The large Yellow Lady's Slipper. Two showy and distinctly fragrant blooms are borne at the top of a leafy stem. It is a variety distinctly worth while. Prices as for the preceding.

**C. spectabile** is the largest and showiest variety. A leafy stem 18 to 24 inches high, carries at the top one or two large rose-purple or nearly white flowers. 1 to 2 crowns, 35 cts. each, \$3.50 per doz.; 3 to 4 crowns, 75 cts. each, \$7.50 per doz.; 4 to 6 crowns, very heavy, \$1.50 each.

Delivery from October to April.

## LARKSPURS or DELPHINIUMS

The western species of these, with the exception of *D. scopulorum* have dry ripened roots very much like ranunculus and can be handled as bulbs.

They make growth after planting in fall and winter, and after flowering ripen into a dry root which can be kept indefinitely. There are very many species of which I offer the following.

**Delphinium californicum** grows from 1 to 2 feet in height, with a single, erect, and many-flowered stem and many dark blue flowers. 10 cts. each, \$1 per doz.

**D. cardinale** is the Giant Scarlet Larkspur of southern California. It often grows from 3 to 4 feet high, and it has been seen over 8 feet high. The scarlet-orange flowers are very showy. 25 cts. each, \$2.50 per doz.



**D. nudicaule** is like the preceding but with much prettier foliage and only from 1 to 2 feet in height. A most delightful plant. 20 cts. each, \$2 per doz.

**D. variegatum** is low—say 8 to 15 inches—with very dark blue flowers of great beauty. 10 cts. each, \$1 per doz.

Dry bulbs in fall—living plants in spring. If received dry, wet them and be convinced that they are full of life. An English firm sent back some bulbs of this nature and after the long trip they flowered here. *Soil*, any loam, a gritty soil best. *Pl.*, preferably dry in early autumn. *Depth*, cover about 2 inches. *Sit.*, light shade or sun.



*Lewisia Howellsii*

## LEWISIAS

These are among the most beautiful rockery plants the world possesses but they also thrive in a very well-drained gritty soil in light shade or not too much exposed to the sun. The soil recommended for calochorti would suit them. All have deep roots, fleshy leaves, and short racemes of most dainty flowers with a satiny texture.

**Lewisia oppositifolia** and **L. rediviva** are assuredly hardy in the East; the others I would expect to be hardy if given a covering of grass or leaves.

**L. Columbianum** has a rosette of short leaves and rosy flowers with dark lines down the midrib. 25 cts. each, \$2.50 per doz.

**L. cotyledon**, with long and more slender leaves and flowers similar to Columbianum. 25 cts. each, \$2.50 per doz.

**L. Howellsii**, with beautifully crested leaves and similar flowers. Same price.

**L. Lecana**, with slender, pine-like leaves and many smaller magenta flowers. It forms many-headed clusters. Same price.

**L. oppositifolia** is smaller and deciduous. The flowers starry, pure white. 15 cts. each, \$1.50 per doz.

**L. rediviva**, also deciduous, is a small plant, with large, satiny pink flowers of great beauty. 15 cts. each, \$1.50 per doz.

*Tarrytown, N. Y.*—*Lewisia oppositifolia* came well through the winter and was covered with starry white blossoms like small water Lilies. Very beautiful.

**Lewisia rediviva** has proved perfectly hardy in the Northern States. A customer writing from Vancouver, B. C., says that all **Lewisias** are hardy there as far as freezing is concerned but suffer from excessive moisture. He gives a cover to shed rain.

They have proved hardy on rockwork in Northern Scotland.

I would expect all to be hardy in the Northern States if where thoroughly drained in very light shades.

This year brought two new species as yet unnamed and two years ago the superb sort now listed as **L. Finchii**.

**Lewisia Finchii** is next to **L. Tweedyi**, the largest and finest of the group. The broad bright green leaves are  $1\frac{1}{2}$  inches wide by 3 inches or more long and make a close rosette flat on the ground. Four or five slender scapes, 8 to 12 inches high, each bear from 20 to 30 very handsome soft pink flowers margined with a broad white margin. A good plant in flower is a solid bouquet. A most lovely plant. 40 cts. each, \$4 per doz. for fine plants.

**Lewisia New No. 3** rather resembles **L. Columbianum** with many flowered stems and small white flowers. 25 cts. each, \$2.50 per doz.

*A famous authority writes in June, 1926: "The Lewisias (planted in a cool greenhouse) are still in heavy bloom here, each species lasting over two weeks, and Lewisias Rediviva the latest to bloom. One plant each of Lewisia Cotyledon and Lewisia Howellii have lived outdoors through two winters and are in heavy bloom. Those with large or colored flowers are as showy, and no more difficult to grow, as the most rare of the Alpines of Europe.*

Many other reports from New York, Massachusetts and other Eastern points corroborate this note.

There is no doubt but the finest of the *Lewisias* can be grown in the East given proper soil and treatment, and they are exceedingly worth the trouble to achieve success.

## HOW TO GROW WILD FLOWERS

Nature gives the lesson, but one must be sure that he reads Nature's lessons aright. Naturally all of these seeds germinate on this coast with the first fair fall rains. They make a winter growth slowly, develop and flower in the spring and die down in summer, although with a little more moisture, some, as for instance, **Godetias**, will flower well through the summer.

The **Eschscholtzia** is a strong perennial treated as an annual.

If one stopped here one would think that the only thing necessary would be to sow in the fall and let them go.

But there is now an element to be met that is not of Nature. Since the white occupation a large number of weeds and coarse grasses have come in and the native flowers cannot stand their competition. A **Godetia**, for instance, has little show in a dense growth of **Alfilleria**, or Burr Clover or Broncho Grass, all of which are foreigners. The **Godetia** would be completely choked out.

To meet this unnatural condition it is necessary either to wet the ground enough in early fall to germinate the seeds of all weeds and grasses and then to plow, spade or even break the surface lightly with hoe or mattock enough to kill the young seedlings.

Then mix the wild flower seeds thoroughly in a considerable quantity of fine dirt or sand so as to be able to sow widely and evenly. Do not sow each sort by itself, but mix sorts flowering in succession. See season numbers before each sort.

For instance, a mixture of **Nemophila**, **Gilia**, **Clarkia**, **Godetia** and **Bartonia** would give a succession from first to last of the season. **Nemophila**, **Gilia**, **Eschscholtzia** and **Lupine** would make another combination, and so on.

The seed once sown needs no care. It will grow well and flower in season and resow itself most liberally. Indeed, too liberally. Flowers do not do as well crowded.

Also, seeds of the weeds and coarse grasses will come in again, and the very best effects are to be had by breaking and resowing every fall. If it is not done there will be many wild flowers for years but gradually the coarse growth will choke them out. There is far more danger of having them too thick than too thin. Eight inches apart is an abundance. If too thick, a rake can be run through to kill many and still leave an abundance.

Summer fallowing of the area is a fine preparation. One can have acres of wild flowers with scarcely any trouble.





#### MARIPOSA OR BUTTERFLY TULIPS

1-2-3 are forms of the El Dorado Strain. 4-5-6 are variations of the lovely *Calochortus Vesta*. 7 is *Calochortus venustus citrinus*. 8 *Calochortus venustus sculatus*, and 9 later flowers and seed pods of *Calochortus amabilis* a Globe Tulip. All  $\frac{1}{3}$  to  $\frac{1}{2}$  natural size.

# SEEDS OF WILD FLOWERS

In California there are an immense number of wild flowers, both annual and perennial. The latter are not well suited for naturalizing as they very seldom bloom the first year.

Very many of these lovely flowers do not take so kindly to culture as to insure success in any way. I think that if a census were taken of the opinions of those who had sowed many sorts they would say that by far the larger number produced nothing, but if one will study Nature this is not necessarily true. I think it best to offer a small list of species almost certain to thrive and flower. Luckily, too, it numbers most of those which make the great mass flowering here.

For open places, in sun or light shade, **Clarkias**, **Collinsia**, **Eucharidiums**, **Godetias**, **Nemophilas**.

For sun, fair soils, and moderate spring moisture, same with **Bartonia aurea**, **Eschscholtzias**, **Gilias**, **Linum Lewisii**, **Calandrina speciosa**.

For very hot sandy or gravelly places, **Bartonia aurea**, **Mentzelias**, **Abronias**, **Argemones**.

There are several well-known garden flowers which do admirably under the same treatment, and I offer seeds as follows:

**Shirley Poppies**. Finest mixed. Oz., 50 cts.

**Argemone Platyceras**, 2-3 ft., hispid, with large white poppy-like flowers. Oz., \$1.

**Bartonia Aurea** has sticky leaves and cup-shaped flowers of delicious yellow filled with golden stamens. Oz., \$1.

**Calandrina Speciosa** is a trailer like **Portulaca**, with showy red flowers. Oz., 75 cts.

**Clarkias** are among California's finest annuals.

**C. Elegans**, soft rose. Oz., 40 cts.

**C. Pulchella**, rose red. Oz., 40 cts.

**Collinsia bicolor** has racemes of many handsome rose and white flowers. Oz., 50 cts.

**Collinsia Grandiflora**, dwarf blue. Pkt., 15 cts.

**Eschscholtzia Californica** is the rich reddish orange sort. Oz., 50 cts.

**E. Caespitosa**, dwarf early golden yellow. Desirable in flower border. Pkt., 15 cts.

**E. Maritimum**, yellow at outer edge, pale at center. Oz., 50 cts.

**E. Tenuifolium**, pale yellow dwarf. Pkt., 15 cts.

**Emmananthes Penduliflora**, a dainty plant with greenish drooping bells. Oz., 75 cts.

**Eucharidium Concinnum** (**Clarkia Concinnum**) is a most delightful low growing sort with deep red flowers. Oz., \$1.

**Gilia Achillaefolia**, 8-12 inches, bright lavender-blue flowers in small heads. Oz., 30c.

**G. Capitata**, heads of light blue flowers; branching habit. Oz., 30 cts.

**G. Tricolor**, low plants, with charming flowers, like **Phlox Drummondii**, in three colors. Oz., 50 cts.

**G. Liniflora**, white, very graceful. Oz., 50 cts.

**Godetia Amoena**, 12-15 inches, branching, large bell-shaped flowers of soft rose. Oz., 50 cts.

**Iberis Gibraltarica**, a most charming perennial with lavender flowers. Pkt., 25 cts.

**Linum Lewisii**, a lovely blue Flax. Oz., 60 cts.

**Layia Elegans**, 6 inches with dainty yellow daisies like tiny **Coreopsis**. Pkt., 15 cts.

**Nemophila Insignis**, blue; a most charming low bedding plant. Oz., 50 cts.

**N. Maculata**, white with vivid purple spots. Oz., 40 cts.

**Nigella Miss Jekyll**, blue flower surrounded by a filmy mass of greenish sepals. Pkt., 15 cts.

**Phacelia Congesta**, branching plants, 12 inches high, with many close heads of blue bells. Pkt., 15 cts.

**P. Campanulata**, same, but loose heads of deep blue. Pkt., 15 cts.

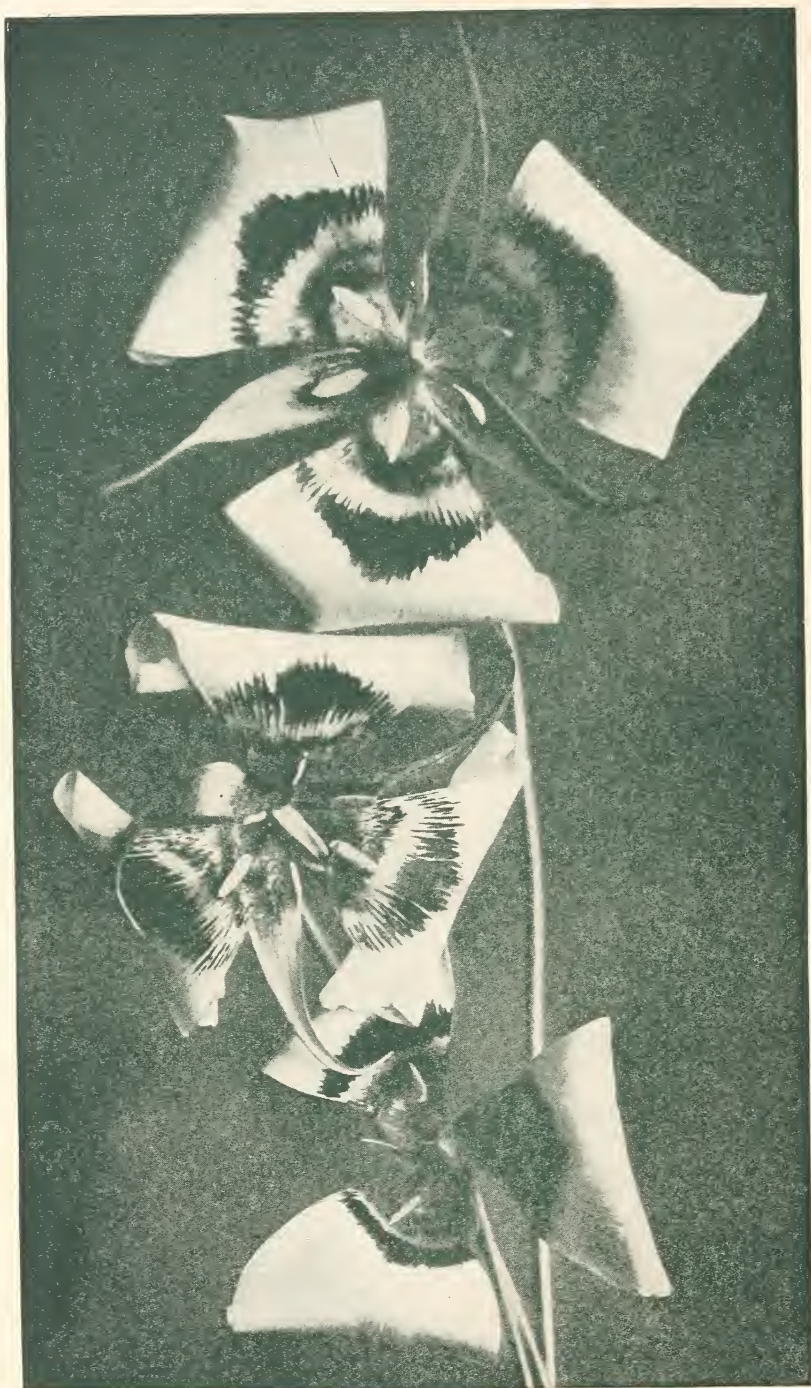
**P. Tanacetifolia**, similar to last but light blue and taller. Pkt., 15 cts.

Packets 10 cts. each unless otherwise stated.

Montreal, Canada: "All of the **Erythroniums** and most of the **Calochortus** came through winter with only a covering of leaves."

Newcastle, Pa.: "**Erythroniums** did well with only a protection of leaves."





*Calochortus Vesta.* An exquisite Mariposa Tulip, with long stems for cutting;  
white, lilac or rose